

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: June 25, 2003, 14:38:41 ; Search time 25.3953 Seconds  
(without alignments)  
843.812 Million cell updates/sec

Title: US-09-622-613B-4  
Perfect score: 579  
Sequence: 1 QDWLTFQKKHLINTRDVDCN.....TFCVTCENQAPVHFVGVGHC 104

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

```
Searched:      671580 seqs, 206047115 residues
Total number of hits satisfying chosen parameters:  671580
```

```
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
```

```
Post-processing:  Minimum Match 0%
                  Maximum Match 100%
                  Listing first 45 summaries
```

```
Database :
SPREMBL_21:*
1: sp.archaea:*
2: sp.bacteria:*
3: sp.fungi:*
4: sp.human:*
5: sp.invertebrate:*
6: sp.mammal:*
7: sp.mhc:*
8: sp.organelle:*
9: sp.phage:*
10: sp.plant:*
11: sp.rodent:*
12: sp.virus:*
13: sp.vertibrate:*
14: sp.unclassified:*
15: sp.virus:*
16: sp.bacteriap:*
17: sp.archaeap:*
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	569	98.3	127	13	Q918V8	Q918V8 rana pipiens
2	547	94.5	127	13	Q8UVX5	Q8UVX5 rana pipiens
3	395.5	68.3	129	13	Q9DFV6	Q9dfv6 rana catesbe
4	380	65.6	128	13	Q9DFV8	Q9dfv8 rana catesbe
5	305	52.7	128	13	Q9DFV7	Q9dfv7 rana catesbe
6	303	52.3	128	13	Q9DFV5	Q9dfv5 rana catesbe
7	292	50.4	133	13	Q98SM0	Q98sm0 rana catesbe
8	286	49.4	133	13	Q98PW7	Q98pw7 rana catesbe
9	280	48.4	133	13	Q98SL9	Q98sl9 rana catesbe
10	279	48.2	132	13	Q98SM2	Q98sm2 rana catesbe
11	276	47.7	133	13	Q98SL8	Q98sl8 rana catesbe
12	274	47.3	132	13	Q98SM1	Q98sm1 rana catesbe
13	269.5	46.5	132	13	Q9DFV8	Q9dfv8 rana catesbe
14	153.5	26.5	169	13	Q9W7J8	Q9w7j8 xenopus laevis
15	122	21.1	157	11	Q9JKJ3	Q9jkj3 meriones unguiculatus
16	122	21.1	157	11	Q9JKJ9	Q9jkj9 meriones unguiculatus

17	120	20.7	152	11	09JK15	09JK15 mus saxicol
18	120	20.7	157	11	09JK14	09JK14 meriones un
19	117.5	20.3	153	11	09JK17	09JK17 mus saxicol
20	117	20.2	157	11	09JK12	09JK12 meriones un
21	117	20.2	157	11	09JK11	09JK11 meriones un
22	114.5	19.8	132	6	09TV24	09TV24 galago moho
23	114	19.7	154	11	09JK18	09JK18 mus saxicol
24	111.5	19.3	155	11	09JK19	09JK19 mus pahari
25	110.5	19.1	119	6	09TS06	09TS06 cerropithec
26	110.5	19.1	119	6	09TV32	09TV32 gorilla gor
27	110.5	19.1	132	6	09TV25	09TV25 entleumr ful
28	110.5	19.1	155	11	09JK13	09JK13 mus saxicol
29	109.5	18.9	119	6	09TV30	09TV30 saquinus oe
30	108.5	18.7	155	11	09JK18	09JK18 mus pahari
31	108	18.7	124	6	09TS12	09TS12 bos taurus
32	108	18.7	156	11	09Z316	09Z316 mus musculu
33	107.5	18.6	155	11	09JK16	09JK16 mus saxicol
34	107	18.5	124	6	09SNE6	09SNE6 bubalus bub
35	106.5	18.4	155	11	09R134	09R134 rattus norv
36	106.5	18.4	155	11	09JK14	09JK14 mus saxicol
37	106.5	18.4	155	11	09JK12	09JK12 mus saxicol
38	105.5	18.2	170	6	09BEC1	09BEC1 tragulus ja
39	105	18.1	144	6	09BHC1	09BHC1 antilocapra
40	105	18.1	156	11	09JK17	09JK17 mus caroli
41	105	18.1	156	11	09JK15	09JK15 mus caroli
42	104.5	18.0	155	11	09R125	09R125 mus musculi
43	104	18.0	156	11	09JK17	09JK17 mus caroli
44	104	18.0	156	11	09BHS0	09BHS0 mus musculi
45	103.5	17.9	119	6	09TV31	09TV31 salimiri sci

## ALIGNMENTS

Query Match	Best Local Similarity	Matches 102; Conservative	Score 569; DB 13; Length 127; Pred. No. 2, 4e-57; Mismatches 1; Indels 0; Gaps
1	98.3%	102	569; DB 13; Length 127; Pred. No. 2, 4e-57; Mismatches 1; Indels 0; Gaps
24	98.3%	102	569; DB 13; Length 127; Pred. No. 2, 4e-57; Mismatches 1; Indels 0; Gaps

OY 61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 104  
 DB 84 SEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 127

## RESULT 2

Q80VX5 PRELIMINARY: PRT: 127 AA.

AC Q80VX5: 01-MAR-2002 (TREMBlrel. 20, Created)  
 DT 01-MAR-2002 (TREMBlrel. 20, Last sequence update)  
 DE 01-JUN-2002 (TREMBlrel. 21, Last annotation update)  
 DE Oncocase precursor.  
 GN RPR.

OS Rana pipiens (Northern leopard frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Rana;  
 ON NCBI\_TaxID=8404;

RP SEQUENCE FROM N.A.

RA Liao Y.-D., Wang S.-C.,

RT "Rana pipiens onconase genomic DNA";

RL Submitted (DEC-2000) to the EMBL/GenBank/DBJ databases.

DR EMBL: AF332139; AAL54383.1;

DR InterPro: IPR001427; RNaseA.

DR Pfam: PF00074; RNaseA.1.

DR ProDom: PD000535; RNaseA.1.

DR SMART: SM00092; RNase\_Pc.1.

DR PROSITE: PS00127; RNASE\_PANCREATIC; UNKNOWN\_1.

KW SIGNAL.

FT SIGNAL.

SO SEQUENCE 127 AA; 14469 MW; 953F90D351CFEEF3 CRC64;

## Query Match

Best Local Similarity 94.5%; Score 547; DB 13; Length 127;  
 Matches 98; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

OY 1 QDMTFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 60  
 DB 24 QDMTFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 83  
 OY 61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 104  
 DB 84 SEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 127

## RESULT 3

Q9DFY6 PRELIMINARY: PRT: 129 AA.

AC Q9DFY6: 01-MAR-2001 (TREMBlrel. 16, Created)  
 DT 01-OCT-2001 (TREMBlrel. 18, Last sequence update)  
 DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)  
 DE RC-RNase2 ribonuclease precursor.  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Rana;  
 ON NCBI\_TaxID=8400;

RP SEQUENCE FROM N.A.  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RC TISSUE=LIVER.  
 RX MEDLINE=20512555; PubMed=11058105;  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RP SEQUENCE FROM N.A.

RA Liao Y.-D., Huang H.-C.,

RC TISSUE=LIVER.

RL Submitted (AUG-2001) to the EMBL/GenBank/DBJ databases.

DR EMBL: AF442553; AAG31441.2;

DR HSP: P22069; IONC.

DR InterPro: IPR001427; RNaseA.  
 DR Pfam: PF00074; RNaseA.1.  
 DR ProDom: PD000535; RNaseA.1.  
 DR SMART: SM00092; RNase\_Pc.1.  
 DR PROSITE: PS00127; RNASE\_PANCREATIC; UNKNOWN\_1.  
 KW SIGNAL.

FT SIGNAL.  
 FT CHAIN 129  
 SO SEQUENCE 129 AA; 14724 MW; 826A6282B10ABDA CRC64;

## Query Match

Best Local Similarity 68.3%; Score 395.5; DB 13; Length 129;  
 Matches 69; Conservative 17; Mismatches 18; Indels 1; Gaps 1;

OY 1 QDMTFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 60  
 DB 24 QDMTFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 83  
 OY 61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 104  
 DB 84 SEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 127

RP SEQUENCE FROM N.A.

RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,

RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RC TISSUE=LIVER.  
 RX MEDLINE=20512555; PubMed=11058105;  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RP SEQUENCE FROM N.A.  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

OY 1 QDMTFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 60  
 DB 24 QDMTFQKKHLNTRDVCNNILSTNLFHCKDKNTFTYSRPPVKAICGIIASKNVLT 83  
 OY 61 FEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 104  
 DB 84 SEFYLSDCNVTSRPCKYKLRKSTNFCVTCENQAPVHFGVGHG 127

## RESULT 4

Q9DFY6 PRELIMINARY: PRT: 128 AA.

AC Q9DFY6: 01-MAR-2001 (TREMBlrel. 16, Created)  
 DT 01-MAR-2001 (TREMBlrel. 16, Last sequence update)  
 DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)  
 DE RC-RNase2 ribonuclease precursor.  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Rana;  
 ON NCBI\_TaxID=8400;

RP SEQUENCE FROM N.A.  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RC TISSUE=LIVER.  
 RX MEDLINE=20512555; PubMed=11058105;  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RP SEQUENCE FROM N.A.  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

RC TISSUE=LIVER.  
 RX MEDLINE=20512555; PubMed=11058105;  
 RA Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.,  
 RT "Purification and cloning of cytotoxic ribonucleases from Rana  
 catesbeiana (bullfrog).";  
 RL Nucleic Acids Res. 28:4097-4104(2000).  
 RN [2]

ID	Q9DFY7	PRELIMINARY:	PRT:	128 AA.
AC	Q9DFY7			
DT	01-MAR-2001 (TREMBLrel. 16, Created)			
DT	01-OCT-2001 (TREMBLrel. 18, Last sequence update)			
DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)			
DE	RC-RNase3 ribonuclease precursor.			
OS	Rana catesbeiana (Bull frog).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.			
OX	NCBI_Taxid=8400;			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=LIVER.			
RX	MEDLINE=20512555; PubMed=11058105;			
RA	Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.;			
RT	"Purification and cloning of cytotoxic ribonucleases from Rana			
RL	catesbeiana (bullfrog)."			
RL	Nucleic Acids Res. 28:4097-4104(2000).			
DR	EMBL: AF242554; AAC31440.2; -			
DR	HSSP: P22069; IONC.			
DR	InterPro: IPR001427; RNaseA.			
DR	Pfam: PF00074; rnasea; 1.			
DR	ProDom: PD000535; RNaseA; 1.			
DR	SMART: SM00392; RNase_Pc; 1.			
DR	PROSITE: PS00127; RNASE_PANCREATIC; UNKNOWN_1.			
KW	Signal.			
FT	SIGNAL	1	23	POTENTIAL.
FT	CHAIN	24	128	RC-RNASE3, RIBONUCLEASE.
SQ	SEQUENCE	128 AA;	14517 MW;	2814986082E0587D CRC64;
Query Match		52.7%;	Score 305;	DB 13; Length 128;
Best Local Similarity		53.8%;	Pred. No. 3.4e-27;	
Matches		56; Conservative 13;	Mismatches 35;	Indels 0; Gaps 0;
QY	1 QDWLTFQKHLTNRDQDNNILSTLNFHCKDKNTFTISREPPVKAIGKIIASNNVLT 60			
Db	24 QDWTFQKHLTDYRKVCDEMAKALFDCKKNTFTFYALPGRVKALCKNIRDTNVL 83			
QY	61 EEFYLSDCNWTSPCKYKRLKSTNFCVTCENQAPVHFGVGHG 104			
Db	84 DAFLLPGCDRIKLPCHYKLLSSNTVTCITVQNLPIHFAGVGC 127			
RESULT 6				
Q9DFY5				
AC	Q9DFY5	PRELIMINARY:	PRT:	128 AA.
DT	01-MAR-2001 (TREMBLrel. 16, Created)			
DT	01-OCT-2001 (TREMBLrel. 18, Last sequence update)			
DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)			
DE	RC-RNase6 ribonuclease precursor.			
OS	Rana catesbeiana (Bull frog).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.			
OX	NCBI_Taxid=8400;			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=LIVER.			
RX	MEDLINE=20512555; PubMed=11058105;			
RA	Liao Y.-D., Huang H.-C., Leu Y.-J., Wei C.-W., Tang P.-C., Wang S.-C.;			
RT	"Purification and cloning of cytotoxic ribonucleases from Rana			
RL	catesbeiana (bullfrog)."			
RL	Nucleic Acids Res. 28:4097-4104(2000).			
DR	EMBL: AF242556; AAC31442.2; -			
DR	HSSP: P22069; IONC.			
DR	InterPro: IPR001427; RNaseA.			

DR	Pfam: PF00074; rnaaseA_1.
DR	ProDom: PD000535; RNaseA_1.
DR	SMART: SM00092; RNase_PC_1.
DR	PROSITE: PS00127; RNASE_PANCREATIC; UNKNOWN_1.
KW	Signal.
FT	SIGNAL
FT	CHAIN
SO	SEQUENCE
SC	128 AA; 14804 MW; AFEHFD67D26G7C2 CRC64;
Query Match	Best Local Similarity 52.3%; Score 303; DB 13; Length 128; Matches 55; Conservative 14; Mismatches 35; Indels 0; Gaps 0;
OY	1 QDWLTFQKHLTNRDYDCNNILSTNLFHCDDKNTFIYSRREPYKAICGIATSKNVLYTT 60           : : : : :           : : : : : 24 QDWLTFQKHLTDTRKKVACDVEMKKALFDCKKTTFIFAPRPRAVALCKNIKIDNTNLVR 83
OY	61 FEFLLSDCNVTISRRCCKYKLKSTMTPEFCTGENQAIVHVGVC 104           : : : : :         : : : : : 84 DVFLLPQCNRKRKLPCVHRLDGSTVITICTLTKMKELPHFAGVKC 127
RESULT 7	
O98SMO	PRELIMINARY; PRT; 133 AA.
ID	O98SMO
AC	O98SMO:
DT	01-JUN-2001 (TREMBLrel_17, Created)
DT	01-JUN-2001 (TREMBLrel_17, Last sequence update)
DT	01-DEC-2001 (TREMBLrel_19, last annotation update)
DE	RNase A-type ribonuclease rc208 precursor.
OS	Rana catesbeiana (Bull frog).
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC	Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.
OX	NCBI_TaxID=8400;
RN	[1]
RP	SEQUENCE FROM N.A.
RX	MEDLINE=21539506; PubMed=11683320;
RA	Rosenberg H.F., Zhang J., Liao Y.-D., Dyer K.D.;
RT	"Rapid diversification of RNase A superfamily ribonuclease from the bullfrog, Rana catesbeiana.";
RL	J. Mol. Evol. 53:31-38(2001);
DR	EMBL: AF31209; AAK30255.1; -
DR	HSSP; I1916; IBC4.
DR	InterPro: IPR001427; RNaseA.
DR	Pfam: PF00074; rnaaseA_1.
DR	ProDom: PD000535; RNaseA_1.
DR	SMART: SM00092; RNase_PC_1.
DR	PROSITE: PS00127; RNASE_PANCREATIC; UNKNOWN_1.
KW	Signal.
FT	SIGNAL
SO	SEQUENCE
SC	1 22 POTENTIAL. 133 AA; 14628 MW; 87FCFL2C3499E02 CRC64;
Query Match	Best Local Similarity 50.4%; Score 292; DB 13; Length 133; Matches 54; Conservative 16; Mismatches 35; Indels 8; Gaps 3;
OY	1 QDWLTFQKHLTNRDYDCNNILSTNLF---HCKDKNTFIYSRREPYKAICGIATSKNV 56           : : : : :           : : : : : 23 QNWATFQQKHITNTSSINCNTIMDNIIYIGGGCGVMTFILSSATYKAICTGYI-NMN 81
OY	57 VLTFFEEYLSDC---NWTSPRCCKYLKASTMTFCVTCENQAIVHVGVC 104         : : : : :         : : : : : 82 VLSTRFQLNMCTRTSITPRCPYSSRTENNYICVKGCENOYRVHFAIGIRC 132
RESULT 8	
O9PMW7	PRELIMINARY; PRT; 133 AA.
ID	O9PMW7
AC	O9PMW7:
DT	01-MAY-2000 (TREMBLrel_13, Created)
DT	01-MAY-2000 (TREMBLrel_13, last sequence update)
DT	01-DEC-2001 (TREMBLrel_19, last annotation update)
DE	Ribonuclease precursor.

GN RCR.  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.  
 NCBI\_TaxID=8400;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=LIVER;  
 RX MEDLINE=98165825; PubMed=9497370;  
 RA Huang H.C., Wang S.C., Liew Y.J., Lu S.C., Liao Y.D.;  
 RT "The Rana catesbeiana rcr gene encoding a cytotoxic ribonuclease.  
 RT tissue distribution, cloning, purification, cytotoxicity, and active  
 RT residues for RNase activity.";  
 RL J. Biol. Chem. 273:6395-6401(1998).  
 DR EMBL: AF039104; AAD10702.1; -  
 DR HSSP: P11916; 1BC4.  
 DR InterPro: IPR001427; RNaseA.  
 DR Pfam: PF00074; rnasea; 1.  
 DR ProDom: PD000535; RNaseA; 1.  
 DR SMART: SM00092; RNase\_Pc; 1.  
 DR PROSITE: PS00127; RNASE\_PANCREATIC; UNKNOWN\_1.  
 KW Signal.  
 FT SIGNAL.  
 FT CHAIN.  
 SQ SEQUENCE 133 AA; 14762 MW; A7D62594F7D16F0C CRC64;  
 Query Match 49.4%; Score 286; DB 13; Length 133;  
 Best Local Similarity 48.6%; Pred. No. 5.2e-25;  
 Matches 54; Conservative 16; Mismatches 33; Indels 8; Gaps 3;

OY 1 QDWLTFQKHLTNTRDVCNNILSTNLF---HCKDKNTFYSRPEPKAKCGIITASKN 56  
 DB 23 QNMATFOCKHITNTSSIMCNSIMNNSLYIVGGCKKRVNFTIISATTVKALCTGVI-MNM 81  
 OY 57 VLTTFEFLSDC---NVTSRCKYKLLKSTNTPCVTCENQAPVHFVGVGHC 104  
 DB 82 VLSPTFRQLDICTRTSITPRCPYSSRKETKIKVCNENQAPVHFVAGIGKC 132

RESULT 9  
 O98SL9 PRELIMINARY: PRT; 133 AA.  
 AC O98SL9;  
 DT 01-JUN-2001 (TREMBLrel. 17, Created)  
 DT 01-JUN-2001 (TREMBLrel. 17, Last sequence update)  
 DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)  
 DE RNase A-type ribonuclease rc212 precursor.  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.  
 NCBI\_TaxID=8400;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=21539506; PubMed=11683320;  
 RA Rosenberg H.F., Zhang J., Liao Y.-D., Dyer K.D.;  
 RT "Rapid diversification of RNase A superfamily ribonuclease from the  
 RT bullfrog, Rana catesbeiana.";  
 RL J. Mol. Evol. 53:31-38(2001).  
 DR EMBL: AF351210; AAK30256.1; -  
 DR HSSP: P11916; 1BC4.  
 DR InterPro: IPR001427; RNaseA.  
 DR Pfam: PF00074; rnasea; 1.  
 DR ProDom: PD000535; RNaseA; 1.  
 DR SMART: SM00092; RNase\_Pc; 1.  
 DR PROSITE: PS00127; RNASE\_PANCREATIC; UNKNOWN\_1.  
 KW Signal.  
 FT SIGNAL.  
 SQ SEQUENCE 133 AA; 14615 MW; C8785B23GB26E54E CRC64;

Query Match 48.4%; Score 280; DB 13; Length 133;  
 Best Local Similarity 46.8%; Pred. No. 2.5e-24;  
 Matches 52; Conservative 17; Mismatches 34; Indels 8; Gaps 3;

OY 1 QDWLTFQKHLTNTRDVCNNILSTNLF---HCKDKNTFYSRPEPKAKCGIITASKN 56  
 DB 23 QNMATFOCKHITNTSSIMCNSIMNNSLYIVGGCKKRVNFTIISATTVKALCTGVI-MNM 81  
 OY 57 VLTTFEFLSDC---NVTSRCKYKLLKSTNTPCVTCENQAPVHFVGVGHC 104  
 DB 82 VLSPTFRQLDICTRTSITPRCPYSSRKETKIKVCNENQAPVHFVAGIGKC 132

RESULT 10  
 O98SM2 PRELIMINARY: PRT; 132 AA.  
 AC O98SM2;  
 DT 01-JUN-2001 (TREMBLrel. 17, Created)  
 DT 01-JUN-2001 (TREMBLrel. 17, Last sequence update)  
 DT 01-JUN-2002 (TREMBLrel. 21, Last annotation update)  
 DE RNase A-type ribonuclease rc203 precursor (RC-RNase7 precursor).  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.  
 NCBI\_TaxID=8400;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=21539506; PubMed=11683320;  
 RA Rosenberg H.F., Zhang J., Liao Y.-D., Dyer K.D.;  
 RT "Rapid diversification of RNase A superfamily ribonuclease from the  
 RT bullfrog, Rana catesbeiana.";  
 RL J. Mol. Evol. 53:31-38(2001).  
 DR EMBL: AF351207; AAK30253.1; -  
 DR HSSP: P11916; 1BC4.  
 DR InterPro: IPR001427; RNaseA.  
 DR Pfam: PF00074; rnasea; 1.  
 DR ProDom: PD000535; RNaseA; 1.  
 DR SMART: SM00092; RNase\_Pc; 1.  
 DR PROSITE: PS00127; RNASE\_PANCREATIC; UNKNOWN\_1.  
 KW Signal.  
 FT SIGNAL.  
 FT CHAIN.  
 SQ SEQUENCE 132 AA; 14412 MW; 131A745187978687 CRC64;

Query Match 48.2%; Score 279; DB 13; Length 132;  
 Best Local Similarity 46.8%; Pred. No. 3.3e-24;  
 Matches 52; Conservative 14; Mismatches 37; Indels 8; Gaps 3;

OY 1 QDWLTFQKHLTNTRDVCNNILSTNLF---HCKDKNTFYSRPEPKAKCGIITASKN 56  
 DB 23 QTMATFOCKHITNTSSIMCNSIMNNSLYIVGGCKKRVNFTIISATTVKALCTGVI-MNM 81  
 OY 57 VLTTFEFLSDC---NVTSRCKYKLLKSTNTPCVTCENQAPVHFVGVGHC 104  
 DB 82 VLSPTFRQLDICTRTSITPRCPYSSRKETKIKVCNENQAPVHFVAGIGKC 132

RESULT 11  
 O98SL8 PRELIMINARY: PRT; 133 AA.  
 AC O98SL8;  
 DT 01-JUN-2001 (TREMBLrel. 17, Created)  
 DT 01-JUN-2001 (TREMBLrel. 17, Last sequence update)  
 DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)  
 DE RNase A-type ribonuclease rc218 precursor.  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.  
 NCBI\_TaxID=8400;  
 RN [1]  
 RP SEQUENCE FROM N.A.



RL Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases  
 DR EMBL: AF159166; AF159166; AF159166.1; -  
 DR HSSP: P00656; IL50.  
 DR InterPro: IPR001472; RNaseA.  
 DR Pfam: PF000074; rnasea; 1  
 DR ProDom: PD000535; RNaseA; 1.  
 DR SMART: SM00092; RNase\_Pc; 1.  
 DR PROSITE: PS00127; RNASE\_PANCAEATC; UNKNOWN\_1  
 SQ SEQUENCE 169 AA: 18891 MW: 29693kDa 3BC3E1B8 CRC64:

Query Match	26.5%;	Score 153.5;	DB 13;	Length 169;
Best Local Similarity	36.1%;	Pred. No. 9e-10;		
Matches 39;	Conservative 19;	Mismatches 35;	Indels 15;	Gaps 6;

```

QY      6 FQKKHLINT-RDYDCN-----NILSTNLFHCCKDKNTFLY-SRPEPYKALCKGIILSKNV 57
      1 : :: : :: 11 : :: : :: : : : : : : : : : : : : : : : : : : : : : : : :
Db     33 FMEKHIVKEGAEITNCNOTIKDRNIRFKN--NCKERNTEIHDITNGKRVKEMGAGIVSYFV 90

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QY 58 LTFEEFYLSDCNV--TSRP--CKYKLKSTNTEFCVTCENQAPVHFVG 100
      ::  ||| : ||| | | ::| : ||| ||| |
Db 91 ISKELLPLTDCLLMGRRTARPNCAYNQRTTGVINITCENNYRVHFAG 138

```

RESULT 15

ID	Q9JKJ3	PRELIMINARY;	PRT;	157	AA.
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Q9JKJ3

DT	01-OCT-2000 (TREMBlere)	15	Last sequence update)
DT	01-OCT-2000 (TREMBlere)	15	Created)

DT 01-JUN-2002 (TREMBLÉ, 21, last annotation update),

DE Eosinophil-associated ribonuclease 25.  
GN EAR25.

05 Meriones unguiculatus (Mongolian jird) (Mongolian gerbil),  
0C Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele-

OC Mammalia; Eutheria; Rodentia; Muridae; Gerbillinae;  
OC Meriones.

NCBI\_TaxID=10047;

RP SEQUENCE FROM N.A.

RX MEDLINE=20243759; Pubmed=10758160;  
RA Zhang J., Dyer K.D., Rosenberg H.F

RT "Evolution of the rodent eosinophil-  
family by rapid gene sorting and pos

Proc. Natl. Acad. Sci. U.S.A. 97:4701-4706(2000).

DR HSSP: P00656; ILSQ.  
DR EMBU; AF230390; AAF0/090.1; -.  
DR

```
DR   InterPro; IPR001427; RNaseA.
DR   Pfam; PF00074; rnaaseA; 1.
```

```
DR PRINTS; PR00794; RIBONUCLEASE
DR PRODOM: PD000535: RNaseA: 1.
```

```
DR SMART; SM00092; RNase_PC; 1.
DE PROCTME; PS00137; RNase_PANDEACTC; UNIKONN 1
```

DR PROSIE, F50V127; RNASE\_PANCREATIC; UNKNOWN\_1.  
SQ SEQUENCE 157 AA; 17945 MW; FDFE22FE77FE371A CRC64;

Query Match	21.18;	Score 122;	DB 11;	Length 157;

Best Local Similarity 29.28; Pred. No. 3.3e-06;  
Matches 33; Conservative 19; Mismatches 33; Indels 28; Gaps 6;

3. ИТЕОККИ ЕНТРИВОН - НТИ СНИ Е - ИСКОКМЕТИСБДНОВЕАТОКЦИ ИАСВАНТИ ЕО

07 HELLVANNHILINADYCDEN NILDJINDE RONDANFIFLISNE EF VAKICNGI LASHNWLJI 39

08 | | :| :| :| :| :| |||||:::| | |

09

DB 36 WFILQ--HISNTTTLQCNAMLGSVNNYTGRCCKDLNTELFHFRANVNEC-----Y

```
Qy      60 TFE-----FYLSDCNVTS----RPCKYKLLKKSINTECVTCENQAP 95.
```

Search completed: June 25, 2003, 14:55:15  
Job time : 25.4787 secs